

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012405**Date Inspected:** 27-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CWI Inspectors: Mr. Li Yang , Mr. Gong Liang Zhu

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Bays 1 through 9

This QA Inspector observed no ZPMC personnel were working on Caltrans OBG segments or tower assemblies in OBG Bays 1 through 9.

OBG Bays 13 and 14

This QA Inspector observed no ZPMC personnel were welding on Caltrans OBG segments. Several workers were using torches to flame cut temporary staging support steel members which had previously supported OBG segment 11E side plates. See the photograph below for additional information.

Tower Bay 10

This QA Inspector observed ZPMC welder Mr. Shi Xingyu, stencil 052930 is using shielded metal arc process

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procedure WPS-B-T-3212-TC-U4b-1 to make South tower lift 4 weld SSTL5-1B/L-39B between side plate C and side plate D. This QA Inspector observed a welding current of approximately 160 amps and that the welding electrodes are being stored in a heated electrode storage container that is connected to an electric power supply. This QA Inspector observed ZPMC has energized electrical heaters heating the back side of the skin plates and ZPMC CWI Mr. Gong Liang Zhu monitoring the welding parameters and base material interpass temperatures. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Jiao Teng, stencil 053049 is using shielded metal arc process procedure WPS-345+485-SMAW-2G(2F)-Repair-2 to make North tower lift 4 weld NSTL4-3K/L-64. This QA Inspector observed a welding current of approximately 160 amps and that the welding electrodes are being stored in a heated electrode storage container that is connected to an electric power supply. This QA Inspector observed QC personnel monitoring the base material interpass temperature. Items observed on this date appeared to generally comply with applicable contract documents.

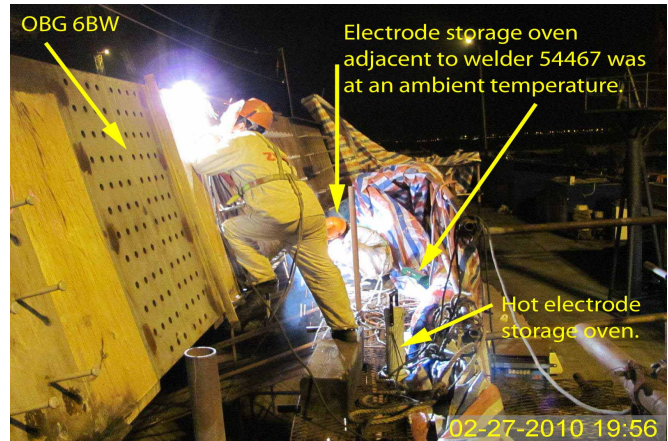
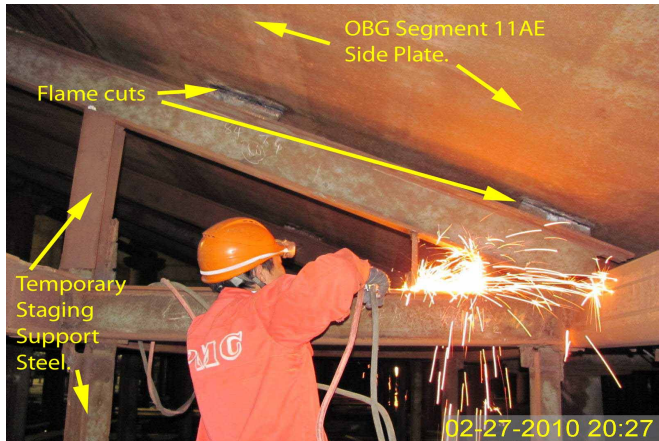
OBG Trial Assembly

This QA Inspector observed ZPMC welder Mr. Hu Yanming, stencil 062092 is using shielded metal arc procedure WPS-345-SMAW-4G(4F)-Repair- to make repair weld OBW6F-012 on counterweight 6BW mounting plate which is welded to OBG segment 6BW. This repair weld is being made as a result of ultrasonic rejections and is being tracked on weld repair document B-WR10702. This QA Inspector observed the welding electrodes are being stored in a portable rod oven which is warm to the touch and it is connected to an electric power cable. This QA Inspector observed the base material appears to have been preheated with an electrical heating element. This QA Inspector measured a welding current of approximately 155 amps and Mr. Hu Yanming appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Han Yiaofeng, stencil 054467 is using shielded metal arc procedure WPS-345-SMAW-4G(4F)-Repair-1 to make repair weld OBW6F-011 on counterweight 6BW mounting plate which is welded to OBG segment 6BW. This repair weld is being made as a result of ultrasonic rejections and is being tracked on weld repair document B-WR10702. This QA Inspector observed the welding electrodes adjacent to where Mr. Han Yiaofeng is welding are being stored in a portable rod oven which is not connected to an electric power cable and the shielded metal arc welding electrodes appear to be at an ambient temperature. This QA Inspector informed ZPMC QC Inspector Mr. Feng Ya Jun that the welding electrodes are at an ambient temperature and Mr. Feng Ya Jun informed this QA Inspector that Mr. Han Yiaofeng was using the welding electrodes from the same rod oven that Mr. Hu Yanming was using. This QA Inspector observed the base material appears to have been preheated with an electrical heating element. This QA Inspector measured a welding current of approximately 150 amps and Mr. Han Yiaofeng appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
